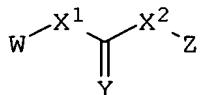


IN THE CLAIMS:

1. (Currently amended) A method of inhibiting checkpoint kinase 1 in a cell comprising a step of contacting the cell with a therapeutically effective amount of a compound of formula

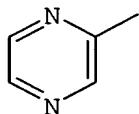


wherein  $X^1$  is  $-O-$ ,  $-S-$ ,  $-CH_2-$ , or  $-N(R^1)-$ ;

$X^2$  is  $-O-$ ,  $-S-$ , or  $-N(R^1)-$ ;

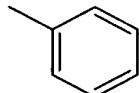
$Y$  is  $O$  or  $S$ ;

$W$  is



;

$Z$  is



;

wherein  $Z$  is optionally substituted with one to four substituents represented by  $R^2$ , and  $W$  is optionally substituted with one to three substituents represented by  $R^5$ ;

$R^1$  is selected from the group consisting of hydro,  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl,  $C_{2-6}$ alkynyl, and aryl;

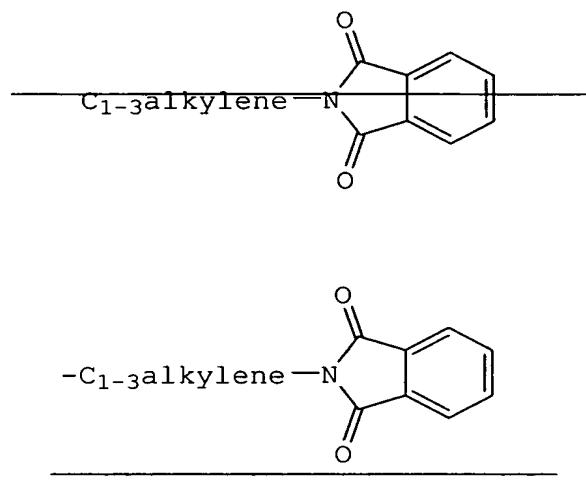
$R^2$  is selected from the group consisting of halo, optionally substituted  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl,  $OCF_3$ ,  $NO_2$ ,  $CN$ ,  $NC$ ,  $N(R^3)_2$ ,  $OR^3$ ,  $CO_2R^3$ ,  $C(O)N(R^3)_2$ ,  $C(O)R^3$ ,

$\text{N}(\text{R}^1)\text{COR}^3$ ,  $\text{N}(\text{R}^1)\text{C}(\text{O})\text{R}^3$ ,  $\text{N}(\text{R}^1)\text{C}(\text{O})\text{OR}^3$ ,  $\text{N}(\text{R}^3)\text{C}(\text{O})\text{OR}^3$ ,  $\text{N}(\text{R}^3)-\text{C}(\text{O})\text{C}_{1-3}\text{alkyleneC}(\text{O})\text{R}^3$ ,  $\text{N}(\text{R}^3)\text{C}(\text{O})\text{C}_{1-3}\text{alkyleneC}(\text{O})\text{OR}^3$ ,  $\text{N}(\text{R}^3)\text{C}(\text{O})\text{C}_{1-3}\text{alkyleneOR}^3$ ,  $\text{N}(\text{R}^3)\text{C}(\text{O})\text{C}_{1-3}\text{alkyleneNHC}(\text{O})\text{OR}^3$ ,  $\text{N}(\text{R}^3)\text{C}(\text{O})\text{C}_{1-3}\text{alkyleneSO}_2\text{NR}^3$ ,  $\text{C}_{1-3}\text{alkyleneOR}^3$ , and  $\text{SR}^3$ ;

$\text{R}^3$  is selected from the group consisting of hydro,  $\text{C}_{1-6}\text{alkyl}$ ,  $\text{C}_{2-6}\text{alkenyl}$ , cycloalkyl, aryl, heteroaryl,  $\text{SO}_2\text{R}^4$ ,  $\text{C}_{1-6}\text{alkyl}$  substituted with one or more of halo, hydroxy, aryl, heteroaryl, heterocycloalkyl,  $\text{N}(\text{R}^4)_2$ , and  $\text{SO}_2\text{R}^4$ ,  $\text{C}_{1-3}\text{alkylenearyl}$ ,  $\text{C}_{1-3}\text{alkyleneheteroaryl}$ ,  $\text{C}_{1-3}\text{alkyleneC}_{3-8}\text{heterocycloalkyl}$ ,  $\text{C}_{1-3}\text{alkyleneSO}_2\text{aryl}$ , optionally substituted  $\text{C}_{1-3}\text{alkyleneN}(\text{R}^4)_2$ ,  $\text{OCF}_3$ ,  $\text{C}_{1-3}\text{alkyleneN}(\text{R}^4)_3^+$ ,  $\text{C}_{3-8}\text{heterocycloalkyl}$ , and  $\text{CH}(\text{C}_{1-3}\text{alkyleneN}(\text{R}^4)_2)_2$ , or two  $\text{R}^3$  groups are taken together to form an optionally substituted 3- to 6-membered aliphatic ring;

$\text{R}^4$  is selected from the group consisting of hydro,  $\text{C}_{1-6}\text{alkyl}$ , cycloalkyl, aryl, heteroaryl,  $\text{C}_{1-3}\text{alkylenearyl}$ , and  $\text{SO}_2\text{C}_{1-6}\text{alkyl}$ , or two  $\text{R}^4$  groups are taken together to form an optionally substituted 3- to 6-membered ring;

$\text{R}^5$  is selected from the group consisting of  $\text{C}_{1-6}\text{alkyl}$ , aryl,  $\text{N}(\text{R}^3)_2$ ,  $\text{OR}^3$ , halo,  $\text{N}_3$ ,  $\text{CN}$ ,  $\text{C}_{1-3}\text{alkylenearyl}$ ,  $\text{C}_{1-3}\text{alkyleneN}(\text{R}^3)_2$ ,  $\text{C}(\text{O})\text{R}^3$ , and



or pharmaceutically acceptable salts, or pro-drugs, or solvates thereof.

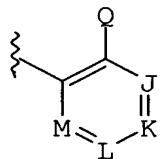
2. (Currently amended) The method of claim 1 wherein

$X^1$  and  $X^2$  are  $-N(H)-$ ;

Y is O or S;

W is optionally substituted with from one to three substituents selected from the group consisting of  $C_{1-6}$ alkyl, aryl,  $N(R^3)_2$ ,  $OR^3$ , and halo;

Z is



wherein Q is selected from the group consisting of hydro,  $OR^3$ ,  $SR^3$ , and  $N(R^3)_2$ ;

J is  $CR^{20}$ ;

K is  $CR^{21}$ ;

L is  $CR^{22}$ ;

M is  $CR^{23}$ ;

wherein:

$R^{20}$ ,  $R^{21}$ , and  $R^{22}$  are each independently selected from the group consisting of hydro, halo, optionally substituted  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl,  $OCF_3$ ,  $NO_2$ ,  $CN$ ,  $NC$ ,  $N(R^{25})_2$ ,  $OR^{25}$ ,  $CO_2R^{25}$ ,  $C(O)N(R^{25})_2$ ,  $C(O)R^{25}$ ,  $N(R^{24})COR^{25}$ ,  $N(R^4)C(O)R^{25}$ ,  $N(R^{24})C(O)OR^{25}$ ,  $N(R^{25})C(O)OR^{25}$ ,  $N(R^{25})C(O)C_{1-3}$ alkylene $C(O)R^{25}$ ,  $N(R^{25})C(O)C_{1-3}$ alkylene- $C(O)OR^{25}$ ,  $N(R^{25})C(O)C_{1-3}$ alkylene $OR^{25}$ ,  $N(R^{25})C(O)C_{1-3}$ alkylene $NHC(O)OR^{25}$ ,  $N(R^{25})C(O)C_{1-3}$ alkylene $SO_2NR^{25}$ ,  $CF_3$ ,  $C_{1-3}$ alkylene $N(R^{25})SO_2$ aryl,  $C_{1-3}$ alkylene $N(R^{25})SO_2$ heteroaryl,  $C_{1-3}$ alkylene $OC_{1-3}$ alkylenearyl,  $C_{1-3}$ alkylene $N(R^{25})C_{1-3}$ alkylenearyl,  $C_{1-3}$ alkylene $N(R^{25})C_{1-3}$ alkyleneheteroaryl,

$C_{1-3}alkyleneN(R^{25})C(O)R^7$ ,  $C_{1-3}alkyleneN(R^{25})C(O)C_{1-3}alkyl-eneOR^{25}$ ,  $C_{1-3}alkyleneN(R^{25})C(O)aryl$ ,  $C_{1-3}alkyleneN(R^{25})-C(O)C_{1-3}alkyleneN(R^{25})_2$ ,  $C_{1-3}alkyleneN(R^{25})C(O)heteraryl$ ,  $C_{1-3}alkyleneOR^{25}$ , and  $SR^{25}$ ;

$R^{23}$  is selected from the group consisting of hydro, optionally substituted  $C_{1-6}alkyl$ , and halo;

$R^{24}$  is selected from the group consisting of hydro,  $C_{1-6}alkyl$ ,  $C_{2-6}alkenyl$ ,  $C_{2-6}alkynyl$ , and aryl;

$R^{25}$  is selected from the group consisting of hydro,  $C_{1-6}alkyl$ ,  $C_{2-6}alkenyl$ , cycloalkyl, heterocycle, aryl, heteroaryl,  $SO_2R^{26}$ , and  $C_{1-6}alkyl$  substituted with halo, hydroxy, aryl, heteroaryl, heterocycloalkyl,  $N(R^{26})_2$ , or  $SO_2R^{26}$ ; and

$R^{26}$  is selected from the group consisting of hydro,  $C_{1-6}alkyl$ , cycloalkyl, aryl, and  $SO_2C_{1-6}alkyl$ , or two  $R^4$  groups are taken together to form an optionally substituted 3- to 6-membered ring.

3. (Currently amended) The method of claim 2 wherein W is optionally substituted with from one to three substituents selected from the group consisting of optionally substituted  $C_{1-6}alkyl$ , aryl,  $N(R^3)_2$ ,  $OR^3$ , and halo.

4. (Cancelled)

5. (Currently amended) The method of claim 2 wherein

J is CR<sup>20</sup>, wherein R<sup>20</sup> is selected from the group consisting of hydro, optionally substituted C<sub>1-6</sub>-alkyl, and halo;

K is CR<sup>21</sup>;

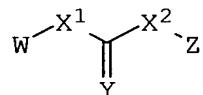
L is CR<sup>22</sup>; and

one of R<sup>21</sup> and R<sup>22</sup> is hydro and the other is a substituent selected from the group consisting of CO<sub>2</sub>R<sup>25</sup>, C(O)N(R<sup>25</sup>)<sub>2</sub>, C(O)R<sup>25</sup>, N(R<sup>24</sup>)COR<sup>25</sup>, N(R<sup>4</sup>)C(O)R<sup>25</sup>, N(R<sup>24</sup>)C(O)OR<sup>25</sup>, N(R<sup>25</sup>)C(O)OR<sup>25</sup>, N(R<sup>25</sup>)C(O)C<sub>1-3</sub>alkylene-C(O)R<sup>25</sup>, N(R<sup>25</sup>)C(O)C<sub>1-3</sub>alkyleneC(O)OR<sup>25</sup>, N(R<sup>25</sup>)C(O)-C<sub>1-3</sub>alkyleneOR<sup>25</sup>, N(R<sup>25</sup>)C(O)C<sub>1-3</sub>alkyleneNHC(O)OR<sup>25</sup>, N(R<sup>25</sup>)C(O)C<sub>1-3</sub>alkyleneSO<sub>2</sub>NR<sup>25</sup>, CF<sub>3</sub>, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)-SO<sub>2</sub>aryl, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)SO<sub>2</sub>heteroaryl, C<sub>1-3</sub>alkylene-OC<sub>1-3</sub>alkylenearyl, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)C<sub>1-3</sub>alkylenearyl, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)C<sub>1-3</sub>alkyleneheteroaryl, C<sub>1-3</sub>alkylene-N(R<sup>25</sup>)C(O)R<sup>7</sup>, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)C(O)C<sub>1-3</sub>alkyleneOR<sub>2</sub>, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)C(O)aryl, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)C(O)-C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)<sub>2</sub>, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)C(O)heteroaryl, C<sub>1-3</sub>alkyleneOR<sup>25</sup>, and SR<sup>25</sup>.

6. (Cancelled)

7. (Cancelled)

8. (Currently amended) A method of sensitizing cells in an individual undergoing a chemotherapeutic or radiotherapeutic treatment for a medical condition, comprising administering a therapeutically effective amount of a compound of formula (I) in combination with a therapeutically effective amount of a chemotherapeutic agent, a radiotherapeutic agent, or a mixture thereof to the individual, said compound of formula (I) having a structure

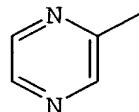


wherein  $X^1$  is  $-O-$ ,  $-S-$ ,  $-CH_2-$ , or  $-N(R^1)-$ ;

$X^2$  is  $-O-$ ,  $-S-$ , or  $-N(R^1)-$ ;

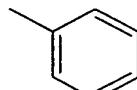
$Y$  is  $O$  or  $S$ ;

$W$  is



;

$Z$  is



;

wherein  $Z$  is optionally substituted with one to four substituents represented by  $R^2$ , and  $W$  is are optionally substituted with one to three substituents represented by  $R^5$ ;

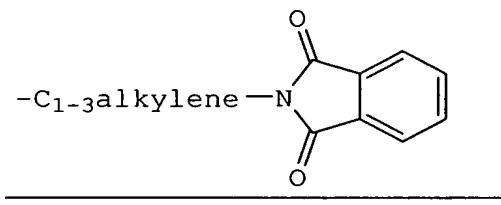
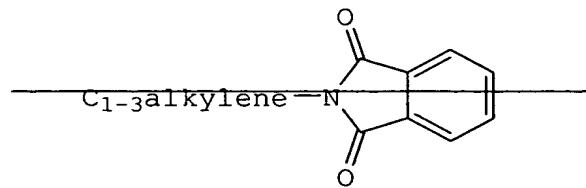
$R^1$  is selected from the group consisting of hydro,  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl,  $C_{2-6}$ alkynyl, and aryl;

$R^2$  is selected from the group consisting of halo, optionally substituted  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl,  $OCF_3$ ,  $NO_2$ ,  $CN$ ,  $NC$ ,  $N(R^3)_2$ ,  $OR^3$ ,  $CO_2R^3$ ,  $C(O)N(R^3)_2$ ,  $C(O)R^3$ ,  $\underline{N(R^4)COR^3}$ ,  $\underline{N(R^1)C(O)R^3}$ ,  $N(R^1)C(O)OR^3$ ,  $N(R^3)C(O)OR^3$ ,  $N(R^3)C(O)C_{1-3}$ alkylene $C(O)R^3$ ,  $N(R^3)C(O)C_{1-3}$ alkylene $C(O)OR^3$ ,  $N(R^3)C(O)C_{1-3}$ alkylene $OR^3$ ,  $N(R^3)C(O)C_{1-3}$ alkylene $NHC(O)OR^3$ ,  $N(R^3)C(O)C_{1-3}$ alkylene $SO_2NR^3$ ,  $C_{1-3}$ alkylene $OR^3$ , and  $SR^3$ ;

$R^3$  is selected from the group consisting of hydro,  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl, cycloalkyl, aryl, heteroaryl,  $SO_2R^4$ ,  $C_{1-6}$ alkyl substituted with one or more of halo, hydroxy, aryl, heteroaryl, heterocycloalkyl,  $N(R^4)_2$ , and  $SO_2R^4$ ,  $C_{1-3}$ alkylenearyl,  $C_{1-3}$ alkyleneheteroaryl,  $C_{1-3}$ alkylene $C_{3-8}$ heterocycloalkyl,  $C_{1-3}$ alkylene $SO_2$ aryl, optionally substituted  $C_{1-3}$ alkylene $N(R^4)_2$ ,  $OCF^3$ ,  $OCF_3$ ,  $C_{1-3}$ alkylene $N(R^4)_3^+$ ,  $C_{3-8}$ heterocycloalkyl, and  $CH(C_{1-3}$ alkylene $N(R^4)_2)_2$ , or two  $R^3$  groups are taken together to form an optionally substituted 3- to 6-membered aliphatic ring;

$R^4$  is selected from the group consisting of hydro,  $C_{1-6}$ alkyl, cycloalkyl, aryl, heteroaryl,  $C_{1-3}$ alkylenearyl, and  $SO_2C_{1-6}$ alkyl, or two  $R^4$  groups are taken together to form an optionally substituted 3- to 6-membered ring;

$R^5$  is selected from the group consisting of  $C_{1-6}$ alkyl, aryl,  $N(R^3)_2$ ,  $OR^3$ , halo,  $N^3$ ,  $CN$ ,  $C_{1-3}$ alkylenearyl,  $C_{1-3}$ alkylene $N(R^3)_2$ ,  $C(O)R^3$ , and



;

or pharmaceutically acceptable salts, or pro-drugs, or solvates thereof.

9. (Currently amended) The method of claim 8 further comprising administering a therapeutically effective amount of at least one of a cytokine, lymphokine, growth factor, or other hematopoietic factor.

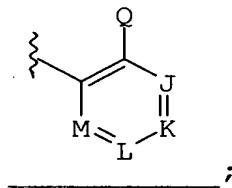
10. (Currently amended) The method of claim  
8 wherein:

$x^1$  and  $x^2$  are  $-N(H)-$ ;

Y is O or S;

W is optionally substituted with from one to three substituents selected from the group consisting of  $C_{1-6}$ alkyl, aryl,  $N(R^3)_2$ ,  $OR^3$ , and halo;

Z is



wherein Q is selected from the group consisting of hydro,  $OR^3$ ,  $SR^3$ , and  $N(R^3)_2$ ;

J is  $CR^{20}$ ;

K is  $CR^{21}$ ;

L is  $CR^{22}$ ;

M is  $CR^{23}$ ;

wherein:

$R^{20}$ ,  $R^{21}$ , and  $R^{22}$  are each independently selected from the group consisting of hydro, halo, optionally substituted  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl,  $OCF_3$ ,  $NO_2$ ,  $CN$ ,  $NC$ ,  $N(R^{25})_2$ ,  $OR^{25}$ ,  $CO_2R^{25}$ ,  $C(O)N(R^{25})_2$ ,  $C(O)R^{25}$ ,  $\del{N(R^{24})COR^{25}}$   $\underline{N(R^{24})C(O)R^{25}}$ ,  $N(R^{24})C(O)OR^{25}$ ,  $N(R^{25})C(O)OR^{25}$ ,  $N(R^{25})C(O)C_{1-3}$ alkylene $C(O)R^{25}$ ,  $N(R^{25})C(O)C_{1-3}$ alkylene- $C(O)OR^{25}$ ,  $N(R^{25})C(O)C_{1-3}$ alkylene $OR^{25}$ ,  $N(R^{25})C(O)C_{1-3}$ alkylene $NHC(O)OR^{25}$ ,  $N(R^{25})C(O)C_{1-3}$ alkylene $SO_2NR^{25}$ ,  $CF_3$ ,  $C_{1-3}$ alkylene $N(R^{25})SO_2$ aryl,  $C_{1-3}$ alkylene $N(R^{25})SO_2$ heteroaryl,  $C_{1-3}$ alkylene $OC_{1-3}$ alkylenearyl,  $C_{1-3}$ alkylene $N(R^{25})C_{1-3}$ alkylenearyl,  $C_{1-3}$ alkylene $N(R^{25})C_{1-3}$ alkyleneheteroaryl,

$C_{1-3}alkyleneN(R^{25})C(O)R^7$ ,  $C_{1-3}alkyleneN(R^{25})C(O)C_{1-3}alkyleneOR^{25}$ ,  $C_{1-3}alkyleneN(R^{25})C(O)aryl$ ,  $C_{1-3}alkyleneN(R^{25})C(O)C_{1-3}alkyleneN(R^{25})2$ ,  $C_{1-3}alkyleneN(R^{25})C(O)heteroaryl$ ,  $C_{1-3}alkyleneOR^{25}$ , and  $SR^{25}$ ;

$R^{23}$  is selected from the group consisting of null, hydro, optionally substituted  $C_{1-6}alkyl$ , and halo;

$R^{24}$  is selected from the group consisting of hydro,  $C_{1-6}alkyl$ ,  $C_{2-6}alkenyl$ ,  $C_{2-6}alkynyl$ , and aryl;

$R^{25}$  is selected from the group consisting of hydro,  $C_{1-6}alkyl$ ,  $C_{2-6}alkenyl$ , cycloalkyl, heterocycle, aryl, heteroaryl,  $SO_2R^{26}$ , and  $C_{1-6}alkyl$  substituted with halo, hydroxy, aryl, heteroaryl, heterocycloalkyl,  $N(R^{26})_2$ , or  $SO_2R^{26}$ ; and

$R^{26}$  is selected from the group consisting of hydro,  $C_{1-6}alkyl$ , cycloalkyl, aryl, and  $SO_2C_{1-6}alkyl$ , or two  $R^4$  groups are taken together to form an optionally substituted 3- to 6-membered ring.

11. (Currently amended) The method of claim 10 wherein W is optionally substituted with from one to three substituents selected from the group consisting of optionally substituted  $C_{1-6}alkyl$ , aryl,  $N(R^3)_2$ ,  $OR^3$ ,  $C_{1-3}alkylenearyl$ ,  $C_{1-3}alkyleneheteroaryl$ ,  $C_{1-3}alkylene-C_{3-8}heterocycloalkyl$ ,  $C_{1-3}alkyleneSO_2aryl$ , optionally substituted  $C_{1-3}alkyleneN(R^4)_2$ ,  $OCF^3$ ,  $C_{1-3}alkyleneN(R^4)_3^+$ ,  $C_{3-8}heterocycloalkyl$ ,  $CH(C_{1-3}alkyleneN(R^4)_2)_2$ , and halo.

12. (Currently amended) The method of claim 10 wherein

J is CR<sup>20</sup>, wherein R<sup>20</sup> is selected from the group consisting of hydro, optionally substituted C<sub>1-6</sub>alkyl, and halo;

K is CR<sup>21</sup>;

L is CR<sup>22</sup>; and

one of R<sup>21</sup> and R<sup>22</sup> is hydro and the other is a substituent selected from the group consisting of CO<sub>2</sub>R<sup>25</sup>, C(O)N(R<sup>25</sup>)<sub>2</sub>, C(O)R<sup>25</sup>, -N(R<sup>24</sup>)COR<sup>25</sup> N(R<sup>24</sup>)C(O)R<sup>25</sup>, N(R<sup>24</sup>)C(O)OR<sup>25</sup>, N(R<sup>25</sup>)C(O)OR<sup>25</sup>, N(R<sup>25</sup>)C(O)C<sub>1-3</sub>alkylene-C(O)R<sup>25</sup>, N(R<sup>25</sup>)C(O)C<sub>1-3</sub>alkyleneC(O)OR<sup>25</sup>, N(R<sup>25</sup>)C(O)C<sub>1-3</sub>alkyleneOR<sup>25</sup>, N(R<sup>25</sup>)C(O)C<sub>1-3</sub>alkyleneNHC(O)OR<sup>25</sup>, N(R<sup>25</sup>)C(O)-C<sub>1-3</sub>alkyleneSO<sub>2</sub>NR<sup>25</sup>, C<sub>1-3</sub>alkyleneOR<sup>25</sup>, CF<sub>3</sub>, C<sub>1-3</sub>alkylene-N(R<sup>25</sup>)SO<sub>2</sub>aryl, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)SO<sub>2</sub>heteroaryl, C<sub>1-3</sub>alkyleneOC<sub>1-3</sub>alkylenearyl, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)C<sub>1-3</sub>alkylene-aryl, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)C<sub>1-3</sub>alkyleneheteroaryl, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)C(O)R<sup>3</sup>, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)C(O)C<sub>1-3</sub>alkyleneOR<sup>3</sup>, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)C(O)aryl, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)C(O)-C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)<sub>2</sub>, C<sub>1-3</sub>alkyleneN(R<sup>25</sup>)C(O)heteroaryl, and SR<sup>25</sup>.

13. (Cancelled)

14. (Original) The method of claim 8 wherein the chemotherapeutic agent is selected from the group consisting of an alkylating agent, an antimetabolite, a hormone or antagonist thereof, a radioisotope, an antibody, and mixtures thereof.

15. (Original) The method of claim 8 wherein the radiotherapeutic agent is selected from the group consisting of gamma-radiation, X-ray radiation, ultraviolet light, visible light, infrared radiation, and microwave radiation.

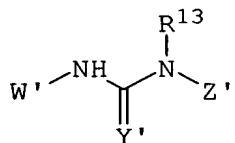
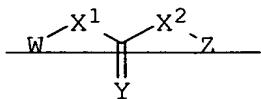
16. (Original) The method of claim 8 wherein the condition is a cancer selected from the group consisting of a colorectal cancer, a head and neck cancer, a pancreatic cancer, a breast cancer, a gastric cancer, a bladder cancer, a vulvar cancer, a leukemia, a lymphoma, a melanoma, a renal cell carcinoma, an ovarian cancer, a brain tumor, an osteosarcoma, and a lung carcinoma.

17. (Original) The method of claim 8 wherein the condition is a cancer selected from the group consisting of myxoid and round cell carcinoma, a locally advanced tumor, metastatic cancer, Ewing's sarcoma, a cancer metastase, a lymphatic metastase, squamous cell carcinoma, esophageal squamous cell carcinoma, oral carcinoma, multiple myeloma, acute lymphocytic leukemia, acute nonlymphocytic leukemia, chronic lymphocytic leukemia, chronic myelocytic leukemia, hairy cell leukemia, effusion lymphomas (body cavity based lymphomas), thymic lymphoma lung cancer, small cell carcinoma, cutaneous T cell lymphoma, Hodgkin's lymphoma, non-Hodgkin's lymphoma, cancer of the adrenal cortex, ACTH-producing tumors, nonsmall cell cancers, breast cancer, small cell carcinoma, ductal carcinoma, stomach cancer, colon cancer, colorectal cancer, polyps associated with colorectal neoplasia, pancreatic cancer, liver cancer, bladder cancer, primary superficial bladder tumors, invasive transitional cell carcinoma of the bladder, muscle-invasive bladder cancer, prostate cancer, ovarian carcinoma, primary peritoneal epithelial neoplasms, cervical carcinoma, uterine endometrial cancers, vaginal cancer, cancer of the vulva, uterine cancer and solid tumors in the ovarian follicle, testicular cancer, penile cancer, renal cell carcinoma, intrinsic brain tumors, neuroblastoma, astrocytic brain tumors, gliomas, metastatic tumor cell invasion in the central nervous system, osteomas and osteosarcomas, malignant melanoma, tumor progression of human skin keratinocytes, squamous cell cancer, thyroid cancer, retino-

blastoma, neuroblastoma, peritoneal effusion, malignant pleural effusion, mesothelioma, Wilms's tumors, gall bladder cancer, trophoblastic neoplasms, hemangio-pericytoma, and Kaposi's sarcoma.

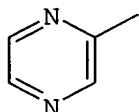
18. (Original) The method of claim 8 wherein the treatment is administered for an inflammatory condition selected from the group consisting of rheumatoid arthritis, psoriasis, vitiligo, Wegener's granulomatosis, and systemic lupus erythematosus.

19. (Currently amended) A compound having a formula

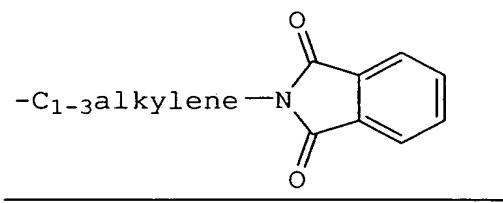
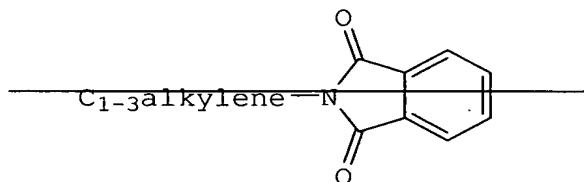


wherein Y' is O or S;

W' is

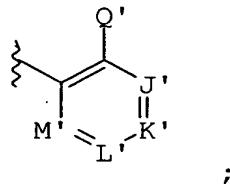


optionally substituted with from one to three substituents selected from the group consisting of C<sub>1-6</sub>alkyl, aryl, N(R<sup>7</sup>)<sub>2</sub>, OR<sup>7</sup>, N<sub>3</sub>, CN, C(O)R<sup>7</sup>, C<sub>1-3</sub>alkylenearyl, C<sub>1-3</sub>alkyleneN(R<sup>12</sup>)<sub>2</sub>,



and halo;

Z' is:



wherein:

Q' is selected from the group consisting of OR<sup>7</sup>, SR<sup>7</sup>, and N(R<sup>7</sup>)<sub>2</sub>;

J' is CR<sup>8</sup>;

K' is CR<sup>9</sup>;

L' is CR<sup>10</sup>;

M' is CR<sup>11</sup>;

wherein:

R<sup>7</sup>, independently, is selected from the group consisting of hydro, C<sub>1-6</sub>alkyl, C<sub>2-6</sub>alkenyl, cycloalkyl, aryl, heteroaryl, SO<sub>2</sub>R<sup>12</sup>, C<sub>1-6</sub>alkyl substituted with one or more of halo, hydroxy, aryl, heteroaryl, heterocycloalkyl, N(R<sup>12</sup>)<sub>2</sub>, and SO<sub>2</sub>R<sup>12</sup>, C<sub>1-3</sub>alkylenearyl, C<sub>1-3</sub>alkyleneheteroaryl, C<sub>1-3</sub>alkyleneC<sub>3-8</sub>heterocycloalkyl, C<sub>1-3</sub>alkyleneSO<sub>2</sub>aryl, optionally substituted C<sub>1-3</sub>alkylene-N(R<sup>12</sup>)<sub>2</sub>, OCF<sub>3</sub>, C<sub>1-3</sub>alkyleneN(R<sup>12</sup>)<sub>3</sub><sup>+</sup>, C<sub>3-8</sub>heterocycloalkyl, and CH(C<sub>1-3</sub>alkyleneN(R<sup>12</sup>)<sub>2</sub>)<sub>2</sub>, or two R<sup>7</sup> groups are taken together to form an optionally substituted 3- to 6-membered aliphatic ring;

R<sup>8</sup>, R<sup>9</sup>, and R<sup>10</sup> are each independently selected from the group consisting of hydro, halo, optionally substituted C<sub>1-6</sub>alkyl, C<sub>2-6</sub>alkenyl, OCF<sub>3</sub>, NO<sub>2</sub>, CN, NC, N(R<sup>7</sup>)<sub>2</sub>, OR<sup>7</sup>, CO<sub>2</sub>R<sup>7</sup>, C(O)N(R<sup>7</sup>)<sub>2</sub>, C(O)R<sup>7</sup>, N(R<sup>13</sup>)COR<sup>7</sup>, N(R<sup>13</sup>)C(O)R<sup>7</sup>, N(R<sup>7</sup>)C(O)OR<sup>7</sup>, N(R<sup>7</sup>)C(O)-

$C_{1-3}alkyleneC(O)R^7$ ,  $N(R^7)C(O)C_{1-3}alkyleneC(O)OR^7$ ,  
 $N(R^7)C(O)C_{1-3}alkyleneOR^7$ ,  $N(R^7)C(O)C_{1-3}alkyleneNHC(O)OR^7$ ,  
 $N(R^7)C(O)C_{1-3}alkyleneSO_2NR^7$ ,  $CF_3$ ,  $C_{1-3}alkyleneN(R^{12})-$   
 $SO_2aryl$ ,  $C_{1-3}alkyleneN(R^{12})SO_2heteroaryl$ ,  $C_{1-3}alkylene-$   
 $OC_{1-3}alkylenearyl$ ,  $C_{1-3}alkyleneN(R^{12})C_{1-3}alkylenearyl$ ,  
 $C_{1-3}alkyleneN(R^{12})C_{1-3}alkyleneheteroaryl$ ,  $C_{1-3}alkylene-$   
 $N(R^{12})C(O)R^7$ ,  $C_{1-3}alkyleneN(R^{12})C(O)C_{1-3}alkyleneOR_2$ ,  
 $C_{1-3}alkyleneN(R^{12})C(O)aryl$ ,  $C_{1-3}alkyleneN(R^{12})C(O)-$   
 $C_{1-3}alkyleneN(R^{12})_2$ ,  $C_{1-3}alkyleneN(R^{12})C(O)heteroaryl$ ,  
 $C_{1-3}alkyleneOR^7$ , and  $SR^7$ , wherein  $R^7$  is as defined above;

$R^{11}$  is selected from the group consisting of hydro, optionally substituted  $C_{1-6}alkyl$ , and halo;

$R^{12}$  is selected from the group consisting of hydro,  $C_{1-6}alkyl$ , cycloalkyl, aryl, heteroaryl,  $C_{1-3}alkylenearyl$ , and  $SO_2C_{1-6}alkyl$ , or two  $R^{12}$  groups are taken together to form an optionally substituted 3- to 6-membered ring; and

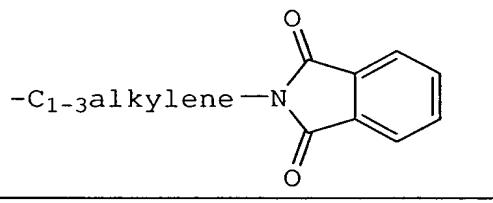
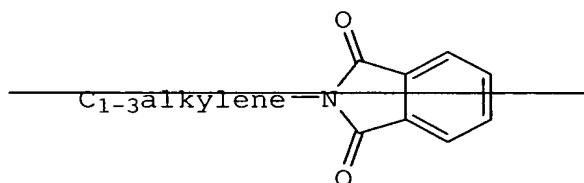
$R^{13}$  is selected from the group consisting of hydro,  $C_{1-6}alkyl$ ,  $C_{2-6}alkenyl$ ,  $C_{2-6}alkynyl$ , and aryl;

provided that when  $Q'$  is ~~hydro or~~  $OCH_3$ , at least one of  $R^8$ ,  $R^9$ , and  $R^{10}$  is different from hydro,  $CH_3$ ,  $OCH_3$ , and halo,

or pharmaceutically acceptable salts, or prodrugs, or solvates thereof.

20. (Cancelled)

21. (Currently amended) The compound of claim 19 wherein W' is substituted with one to three substituents selected from the group consisting of methyl,  $CF_3$ , optionally substituted aryl,  $N_3$ , benzyl,  $C(O)R^7$ ,  $C_{1-3}\text{alkylene}N(R^{12})_2$ ,  $OR^7$ ,  $N(R^7)_2$ , halo, and



22. (Original) The compound of claim 19 wherein Q' is  $OR^7$ .

23. (Original) The compound of claim 22 wherein Q' is  $OCH_3$ .

24. (Original) The compound of claim 19 wherein  $R^{13}$  is hydro.

25. (Currently amended) The compound of claim 19 wherein

J' is CR<sup>8</sup>, wherein R<sup>8</sup> is hydro, C<sub>1-6</sub>alkyl, and halo;

K' is CR<sup>9</sup>;

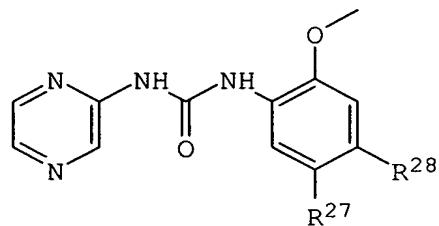
L' is CR<sup>10</sup>; and

one of R<sup>9</sup> and R<sup>10</sup> is hydro and the other is a substituent selected from the group consisting of CO<sub>2</sub>R<sup>7</sup>, C(O)N(R<sup>7</sup>)<sub>2</sub>, C(O)R<sup>7</sup>, ~~N(R<sup>13</sup>)COR<sup>7</sup>~~ N(R<sup>13</sup>)C(O)R<sup>7</sup>, N(R<sup>13</sup>)-C(O)OR<sup>7</sup>, N(R<sup>7</sup>)C(O)OR<sup>7</sup>, N(R<sup>7</sup>)C(O)C<sub>1-3</sub>alkyleneC(O)R<sup>7</sup>, N(R<sup>7</sup>)C(O)C<sub>1-3</sub>alkyleneC(O)OR<sup>7</sup>, N(R<sup>7</sup>)C(O)C<sub>1-3</sub>alkyleneOR<sup>7</sup>, N(R<sup>7</sup>)C(O)C<sub>1-3</sub>alkyleneNHC(O)OR<sup>7</sup>, N(R<sup>7</sup>)C(O)C<sub>1-3</sub>alkylene-SO<sub>2</sub>NR<sup>7</sup>, C<sub>1-3</sub>alkylene-OR<sup>7</sup>, CF<sub>3</sub>, C<sub>1-3</sub>alkyleneN(R<sup>12</sup>)SO<sub>2</sub>aryl, C<sub>1-3</sub>alkyleneN(R<sup>12</sup>)SO<sub>2</sub>heteroaryl, C<sub>1-3</sub>alkyleneOC<sub>1-3</sub>alkylenearyl, C<sub>1-3</sub>alkyleneN(R<sup>12</sup>)C<sub>1-3</sub>alkyleneheteroaryl, C<sub>1-3</sub>alkyleneN(R<sup>12</sup>)C(O)R<sup>7</sup>, C<sub>1-3</sub>alkyleneN(R<sup>12</sup>)C(O)C<sub>1-3</sub>alkyleneOR<sup>2</sup>, C<sub>1-3</sub>alkyleneN(R<sup>12</sup>)-C(O)aryl, C<sub>1-3</sub>alkyleneN(R<sup>12</sup>)C(O)C<sub>1-3</sub>alkyleneN(R<sup>12</sup>)<sub>2</sub>, C<sub>1-3</sub>alkyleneN(R<sup>12</sup>)C(O)heteroaryl, and SR<sup>7</sup>.

26. (Cancelled)

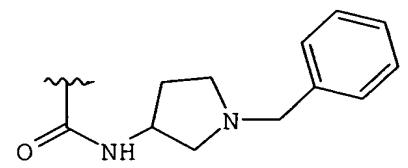
27. (Original) A method of sensitizing cells in an individual undergoing a chemotherapeutic or radiotherapeutic treatment for a medical condition, comprising administering a therapeutically effective amount of a compound of claim 19 in combination with a chemotherapeutic agent, a radiotherapeutic agent, or a mixture thereof to the individual.

28. (Previously amended) A compound having a structure

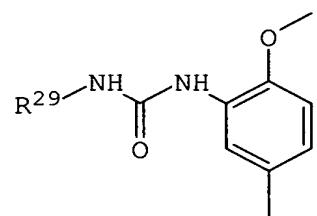


wherein  $\text{R}^{27}$  and  $\text{R}^{28}$  are

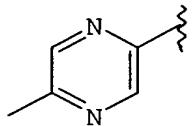
$\text{R}^{27}$	$\text{R}^{28}$
H	
H	
H	
$\text{CH}_3$	H
H	
H	
	H

$R^{27}$	$R^{28}$
	H

or



wherein  $R^{29}$  is

$R^{29}$


29. (Previously amended) A compound selected from the group consisting of:

N-(2-dimethylamino-1-phenyl-ethyl)-3-methoxy-4-[3-(5-methyl-pyrazin-2-yl)-ureido]-benzamine;

N-(1-aza-bicyclo[2.2.2]oct-3-yl)-3-methoxy-4-[3-(5-methyl-pyrazin-2-yl)-ureido]-benzamide;

N-(3-R-1-cyclohexylmethyl-pyrrolidin-3-yl)-3-methoxy-4-[3-(5-methyl-pyrazin-2-yl)-ureido]-benzamide;

1-[2-(2-dimethylamino-ethoxy)-5-methyl-phenyl]-3-pyrazin-2-yl-urea;

1-[2-(3-dimethylamino-propoxy)-5-methyl-phenyl]-3-(5-methyl-pyrazin-2-yl)-urea;

1-(5-methyl-pyrazin-2-yl)-3-[5-methyl-2-(pyridin-3-ylmethoxy)-phenyl]-urea;

1-[2-(2-dimethylamino-1-dimethylaminomethyl-ethoxy)-5-methyl-phenyl]-3-(5-methyl-pyrazin-2-yl)-urea;

1-[5-methyl-2-(2-S-1-methyl-pyrrolidin-2-ylmethoxy)-phenyl]-3-(5-methyl-pyrazin-2-yl)-urea;

1-{5-methyl-2-[2-(1-methyl-pyrrolidin-2-yl)-ethoxy]-phenyl}-3-(5-methyl-pyrazin-2-yl)-urea;

1-{5-methyl-2-(1-methyl-piperidin-4-yloxy)-phenyl]-3-(5-methyl-pyrazin-2-yl)-urea;

1-[5-methyl-2-(3-(S)-1-methyl-piperidin-3-ylmethoxy)-phenyl]-3-(5-methyl-pyrazin-2-yl)-urea;

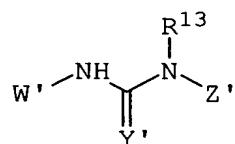
1-[5-methyl-2-(3-(R)-1-methyl-piperidin-3-ylmethoxy)-phenyl]-3-(5-methyl-pyrazin-2-yl)-urea;

1-[5-methyl-2-(1-methyl-piperidin-2-ylmethoxy)-phenyl]-3-(5-methyl-pyrazin-2-yl)-urea;

1-[5-methyl-2-(1-methyl-piperidin-3-yloxy)-phenyl]-3-(5-methyl-pyrazin-2-yl)-urea;

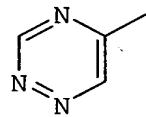
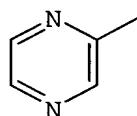
1-[5-methyl-2-(piperidin-3-ylmethoxy)-phenyl]-3-(5-methyl-pyrazin-2-yl)-urea;  
1-[5-fluoro-2-(1-methyl-piperidin-3-ylmethoxy)-phenyl]-3-(5-methyl-pyrazin-2-yl)-urea;  
1-[5-fluoro-2-(1-methyl-piperidin-4-yloxy)-phenyl]-3-(5-methyl-pyrazin-2-yl)-urea;  
1-[4-fluoro-2-(1-methyl-piperidin-4-yloxy)-phenyl]-3-(5-methyl-pyrazin-2-yl)-urea;  
1-(2-methoxy-4-methylaminomethyl-phenyl)-3-(5-methyl-pyrazin-2-yl)-urea;  
1-(4-{{(furan-3-ylmethyl)-amino}-methyl}-2-methoxy-phenyl)-3-(5-methyl-pyrazin-2-yl)-urea; and  
1-{2-methoxy-4-[(4-methoxy-benzylamino)-methyl]-phenyl}-3-(5-methyl-pyrazin-2-yl)-urea.

30. (Currently amended) A composition comprising a compound of formula (II) and a pharmaceutically acceptable carrier, said compound of formula (II) having a formula

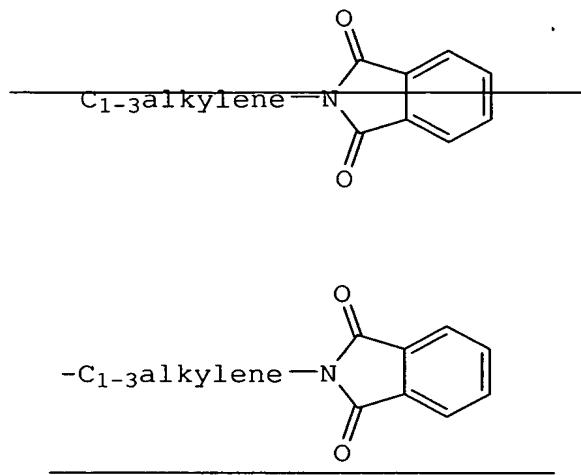


(II)

wherein Y' is O or S;  
W' is

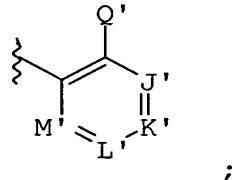


optionally substituted with from one to three substituents selected from the group consisting of C<sub>1-6</sub>alkyl, aryl, N(R<sup>7</sup>)<sub>2</sub>, OR<sup>7</sup>, N<sub>3</sub>, CN, C(O)R<sup>7</sup>, C<sub>1-3</sub>alkylenearyl, C<sub>1-3</sub>alkyleneN(R<sup>12</sup>)<sub>2</sub>,



and halo;

$Z'$  is



;

wherein:

$Q'$  is selected from the group consisting of  $OR^7$ ,  $SR^7$ , and  $N(R^7)_2$ ;

$J'$  is  $CR^8$ ;

$K'$  is  $CR^9$ ;

$L'$  is  $CR^{10}$ ;

$M'$  is  $CR^{11}$ ;

wherein:

$R^7$ , independently, is selected from the group consisting of hydro,  $C_{1-6}$ alkyl,  $C_{2-6}$ alkenyl, cycloalkyl, aryl, heteroaryl,  $SO_2R^{12}$ ,  $C_{1-6}$ alkyl substituted with one or more of halo, hydroxy, aryl, heteroaryl, heterocycloalkyl,  $N(R^{12})_2$ , and  $SO_2R^{12}$ ,  $C_{1-3}$ alkylenearyl,  $C_{1-3}$ alkyleneheteroaryl,  $C_{1-3}$ alkylene $C_{3-8}$ heterocycloalkyl,

$C_{1-3}alkyleneSO_2aryl$ , optionally substituted  $C_{1-3}alkylene-N(R^{12})_2$ ,  $OCF_3$ ,  $C_{1-3}alkyleneN(R^{12})_3^+$ ,  $C_{3-8}heterocycloalkyl$ , and  $CH(C_{1-3}alkyleneN(R^{12})_2)_2$ , or two  $R^7$  groups are taken together to form an optionally substituted 3- to 6-membered aliphatic ring;

$R^8$ ,  $R^9$ , and  $R^{10}$  are each independently selected from the group consisting of hydro, halo, optionally substituted  $C_{1-6}alkyl$ ,  $C_{2-6}alkenyl$ ,  $OCF_3$ ,  $NO_2$ ,  $CN$ ,  $NC$ ,  $N(R^7)_2$ ,  $OR^7$ ,  $CO_2R^7$ ,  $C(O)N(R^7)_2$ ,  $C(O)R^7$ ,  $\text{N}(\text{R}^{13})\text{COR}^7$ ,  $\text{N}(\text{R}^{13})\text{C(O)R}^7$ ,  $\text{N}(\text{R}^7)\text{C(O)OR}^7$ ,  $\text{N}(\text{R}^7)\text{C(O)}-$ ,  $C_{1-3}alkyleneC(O)R^7$ ,  $\text{N}(\text{R}^7)\text{C(O)}C_{1-3}alkyleneC(O)OR^7$ ,  $\text{N}(\text{R}^7)\text{C(O)}C_{1-3}alkyleneOR^7$ ,  $\text{N}(\text{R}^7)\text{C(O)}C_{1-3}alkyleneNHC(O)OR^7$ ,  $\text{N}(\text{R}^7)\text{C(O)}C_{1-3}alkyleneSO_2NR^7$ ,  $C_{1-3}alkyleneOR^7$ , and  $SR^7$ , wherein  $R^7$  is as defined above;

$R^{11}$  is selected from the group consisting of hydro, optionally substituted  $C_{1-6}alkyl$ , and halo;

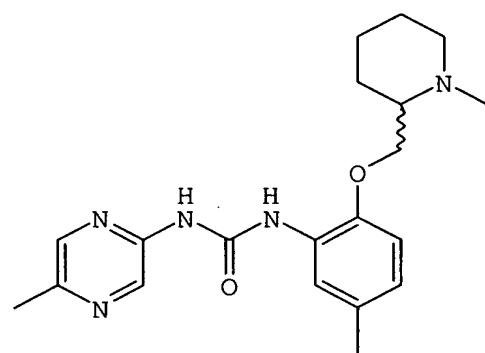
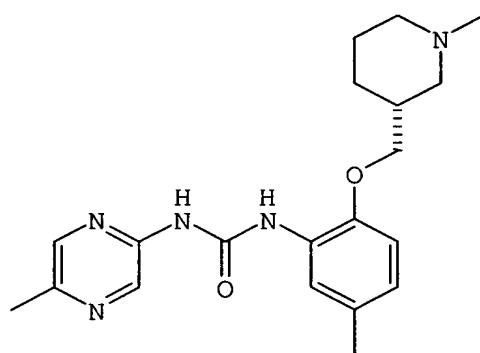
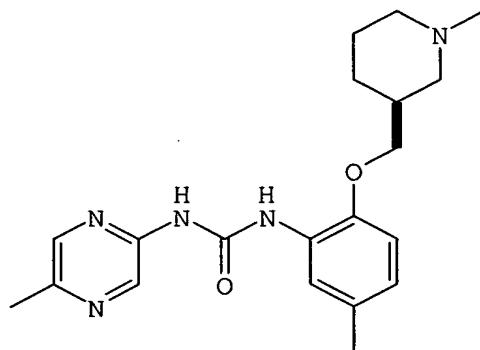
$R^{12}$  is selected from the group consisting of hydro,  $C_{1-6}alkyl$ , cycloalkyl, aryl, heteroaryl,  $C_{1-3}alkylenearyl$ , and  $SO_2C_{1-6}alkyl$ , or two  $R^{12}$  groups are taken together to form an optionally substituted 3- to 6-membered ring; and

$R^{13}$  is selected from the group consisting of hydro,  $C_{1-6}alkyl$ ,  $C_{2-6}alkenyl$ ,  $C_{2-6}alkynyl$ , and aryl;

provided that when  $Q'$  is hydro or  $OCH_3$ , at least one of  $R^8$ ,  $R^9$ , and  $R^{10}$  is different from hydro,  $CH_3$ ,  $OCH_3$ , and halo,

or pharmaceutically acceptable salts, or prodrugs, or solvates thereof.

31. (Previously presented) A compound selected from the group consisting of



, and

